

# Small-Scale Fisherfolk and the BOBP.



For Fisheries Development

**BAY OF BENGAL PROGRAMME**



# BAY OF BENGAL PROGRAMME

**The Organization.:** The Bay of Bengal Programme is a regional fisheries programme, with FAO as the leading agency. It covers seven countries bordering the Bay of Bengal: Bangladesh, India, Indonesia, Malaysia, Maldives, Sri Lanka, Thailand. The main component of the Programme is the project "Small-Scale Fisherfolk Communities in the Bay of Bengal", which began in 1987. Funded jointly by SIDA and DANIDA, this \$ 8 million project succeeds the 8-year SIDA-funded project, "Development of Small-Scale Fisheries in the Bay of Bengal", which concluded 1986.

A project on post-harvest fisheries, executed and funded by ODA (UK), is part of the BOBP. So is a project for training activities, sponsored by AGFUND (Arab Gulf Fund for United Nations Development Organizations), and a project to improve the living conditions of fisherwomen and their families, sponsored by UNFPA (United Nations Population Fund). A few other projects including one on bio. economics of small-scale fisheries funded by UNDP, are also likely to join the BOBP.

**The Goal:** The BOBP's main thrust is socio-economic betterment of small-scale fisherfolk communities of the region – who suffer from poor incomes and living standards, low social mobility and limited political influence. The immediate goal is to develop and demonstrate new ideas or techniques, new technologies, methodologies or systems to help small-scale fisherfolk.

**The Strategy:** Experiments or pilot activities are carried out in member-countries, usually in one or more fishing villages or provinces, in cooperation with governments. These experiments may relate to community organization and extension, fishing technology, aquaculture, fishery resources, or post-harvest technology.

High emphasis is accorded to improving the role of women in fisherfolk families, to training and technology transfer, to winning the active participation of target groups in all activities, to tapping local expertise and materials, and to regular information dissemination.

**The Set-up:** The project staff is multi-disciplinary and spans a wide spectrum – sociology, economics, extension training, naval architecture, marine engineering, fishing technology, aquaculture, post-harvest technology, fishery resources, information.

*Clockwise from top left: Fisherfolk community in Thailand; Orissa fisherwoman with child; Feisty Indonesian fisherfolk; Kakinada fisherwoman dries fish.*









**The Impact:** The benefits flowing from BOBP activities could be concrete – such as higher fish catches and incomes, or successful loans and savings schemes for fisherfolk. They could also be abstract – such as more activist attitudes among fisherfolk, better awareness, higher skills,

If large fisherfolk populations are to enjoy these benefits, BOBP pilot activities, carried out for a short period in a limited area – a fishing village or a province – must be extended in scale, scope and time. Such extension or expansion is the responsibility of member-governments and of national institutions,

The BOBP assists in such expansion. Its role in helping small-scale fisherfolk communities is thus catalytic and consultative: seminars and consultations for scientists and officials, and technical reports and newsletters, enhance the catalytic role.

The BOBP serves as a mechanism for TCDC (technical cooperation among developing countries); expertise is

often mobilized from within the region. It is also a catalyst and a channel for national projects by donor agencies to strengthen fisheries development and management in the region.

**Review and monitoring:** An Advisory Committee oversees the BOBP's work. It consists of representatives from member-countries, the FAO, and donor agencies, and meets once a year. Besides, the projects are periodically reviewed by appraisal missions from FAO or the donor agencies.

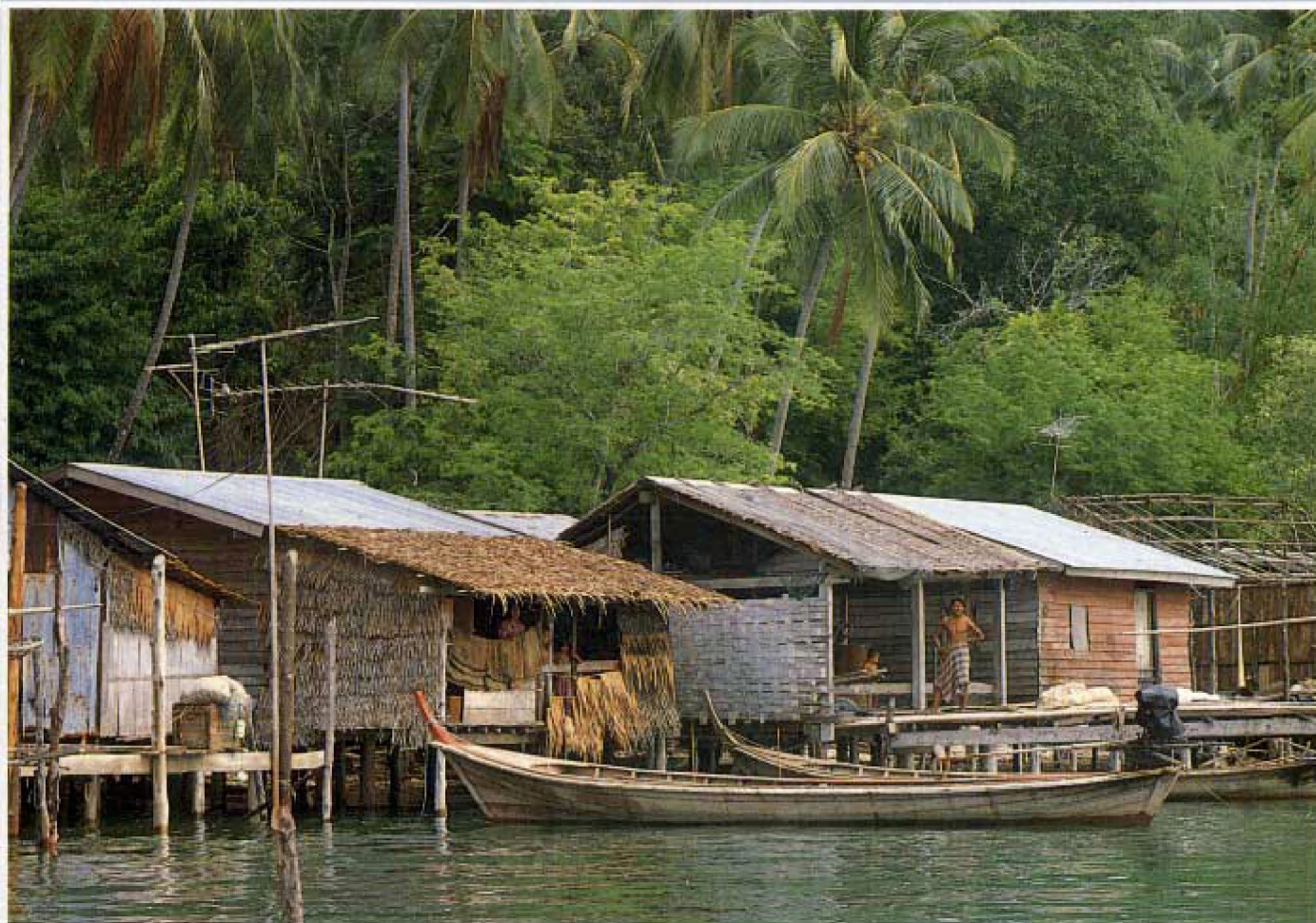
At the request of the Advisory Committee, the BOBP maintains an "overview" of fisheries development needs in the region, and identifies measures and prepares projects to meet these needs.

The BOBP forms the main support programme of the Bay of Bengal Committee (the Indian Ocean Fishery Commission's Committee for the Management and Development of Fisheries in the Bay of Bengal), the leading advisory fisheries body of the region.

*Fisherwomen in Puri, Orissa, await boats at dawn.*







*BOBP extension activities include integrated extension services (Ranong province, Thailand – above), and bettering the living conditions of fisherwomen.*

## EXTENSION

Extension usually means transfer of technology. At BOBP it means many things:

- helping fisherfolk communities to take control of and to participate actively in their own socio-economic and technical development;
- evolving bankable credit schemes to meet the fishing and non-fishing needs of fisherfolk communities;
- developing materials and organizational approaches to non-formal education for fisherfolk and their children;
- enabling fishermen and fisherwomen to improve their earnings through better management of their enterprises;
- carrying successful technologies to fisherfolk;
- helping technical specialists to improve people's participation in technology development, and in technical trials and demonstrations; and
- enabling fisheries departments to develop extension services that meet fisherfolk needs and help in their development.





Current extension activities of BOBP include

- A radio programme for fisherfolk of Sri Lanka.
- Credit project for fisherfolk, Sri Lanka (on the lines of the well-known credit project for fisherfolk in Orissa).
- A comprehensive extension project (with both socio-economic and technology components) in Ranong province, Thailand.
- Stimulating entrepreneurial development among fisherfolk of Langkat district, Indonesia, in fish processing, fishing and non-fishing activities.
- Assisting NGOs in India through training and technology inputs in fishing technology, aquaculture and extension.
- Training officials in participatory research and planning among fisherfolk communities: Bangladesh and Maldives.
- Improving the conditions of fisherwomen and their families.

Several important extension activities were carried out by BOBP during its first phase. These have been well documented through technical reports and through the newsletter, *Bay of Bengal News*. These activities include successes like the credit project for fisherfolk in Orissa, India; and the non-formal education project for adult fisherfolk in Tamil Nadu and for fisherfolk children in Orissa, India. The link worker project for fisherwomen in Tamil Nadu, India, was a trend-setter in many ways.

*Extension activities in Sri Lanka, Indonesia, India, Bangladesh and Maldives.*







Sri Lanka



Indonesia



India



Bangladesh



# AQUACULTURE

Faced with declining yields from capture fisheries and stimulated by rising prices for quality seafood, coastal fishing communities in the Asian region are turning to aquaculture – the husbandry of aquatic organisms. The BOBP is helping to meet the challenge with its efforts to develop and demonstrate aquaculture technology for small-scale producers in the fisherfolk community.

The Programme does this in a variety of ways, but always focusing on the fisherfolk community and trying to involve its members to the greatest extent possible, even in the early stages of testing new aquaculture technologies – for that is central to BOBP's mission, the introduction of new ideas.

During the BOBP's second phase, the approach has been to build upon the experiences of the first phase, by applying knowledge and experience gained in seaweed farming, cage culture of fin fish, shrimp pen culture; and by applying insights acquired through the various studies and reviews of aquaculture development problems in the Bay of Bengal region. In this effort, the aquaculture staff works closely with BOBP extension experts to ensure the fullest possible involvement of fisherfolk.

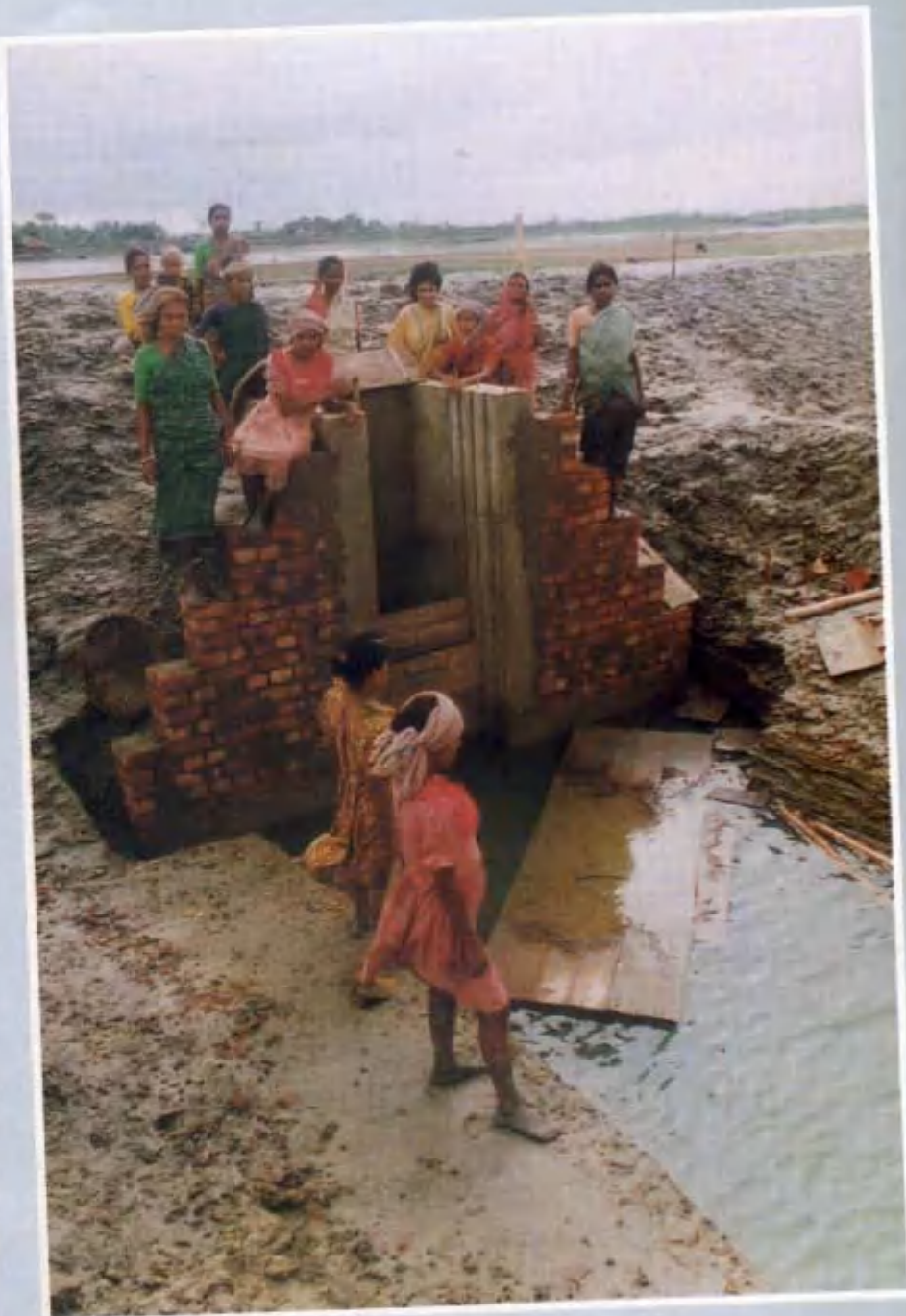
**BOBP** supports a variety of coastal aquaculture activities:

- Seaweed farming trials in Tamil Nadu, India and Puttalam, Sri Lanka.
- Oyster farming on the west coast of Peninsular Malaysia.
- Improving the capture, handling and nursing of shrimp fry in West Bengal and Bangladesh.
- Setting up of backyard hatcheries for shrimps in Bangladesh and West Bengal.

*Clockwise from top left: Improving shrimp fry collection in Bangladesh; nursing of shrimp fry in West Bengal, India; oyster culture in Malaysia; seaweed culture in Mandapam, India.*









# FISHING TECHNOLOGY

The term “Fishing Technology” encompasses all matters related to small-scale capture fisheries such as fishing methods, fishing gear and fishing aids, the design, construction and propulsion of fishing craft.

The productivity of traditional fishing communities is low, because of limitations in the craft and gear they use. The immediate BOBP goal in fishing technology has been to introduce methods and techniques to generate higher net incomes, either by raising productivity or by reducing costs.

## **Towards this end, the BOBP has:**

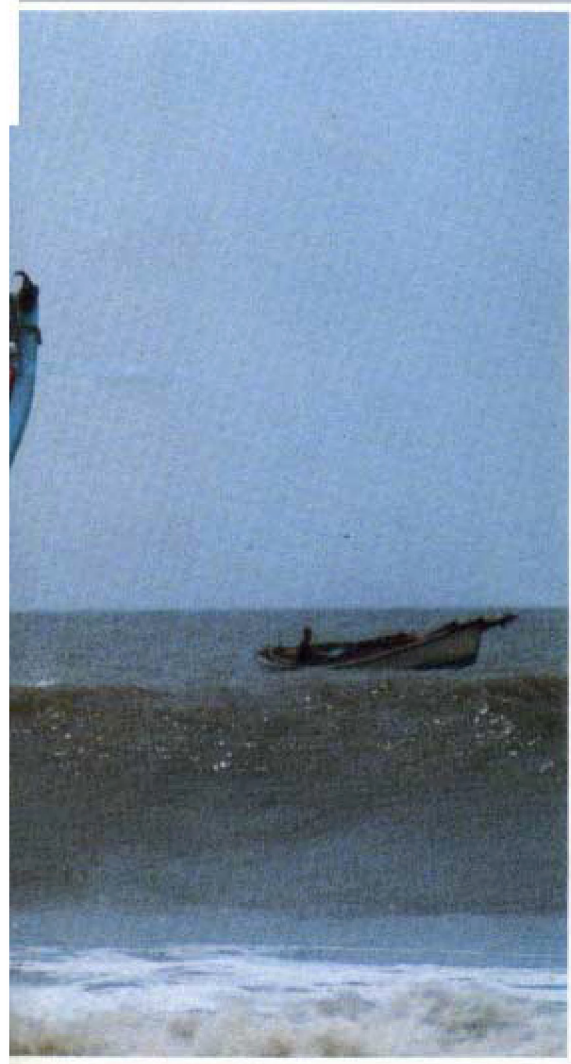
- Designed, developed and demonstrated new craft (motorized beachlanding craft) in India and Sri Lanka.

*Facets of beachcraft development work in India.*

*Clockwise from top left: Beachcraft crosses the surf; Boatbuilding yard in Kakinada; Catches from IND-20 in Pun; Fishing with gillnets in Kakinada; Use of beach-hauling device in Tamil Nadu; IND-20 under sail.*









- Tried out motorization of fishing craft in Bangladesh and India. (Successfully with the Chandi in Bangladesh, inconclusively with the Tamil Nadu vallam and the Orissa dhingie).
- Modified intermediate fishing craft of the 28-32 ft range in Sri Lanka to make them suitable for multi-day operations and offshore fishing. On the basis of the Sri Lankan experience, offshore pelagic fishing techniques are being demonstrated in India.
- Tried out the effectiveness of low-cost propulsion systems like sails and low horsepower engines.
- Initiated design and development of different outrigger canoes in Indonesia and Sri Lanka.
- Initiated testing and demonstration of hauling devices for boats in the Maldives.
- Attempted to diversify fishing methods by introducing inexpensive fishing gears such as longlines.



*Clockwise from top left: SRL - 15, offshore boat for Sri Lanka; Hauling systems in the Maldives – traditional and modern; the Bangladesh Chandi (motorization makes it more effective); fishermen use engine maintenance manual prepared by BOBP; SRL-19, the plank-built outrigger canoe developed for Sri Lanka.*









# POST-HARVEST TECHNOLOGY

Better handling, processing and marketing of fish in the Bay of Bengal region is the aim of BOBP's post harvest fisheries project. The specific objectives are to:

- Reduce post-harvest losses which occur through lack of awareness or training, poor techniques, inadequate handling facilities and equipment.
- Enhance fish utilization.
- Increase the value added to fish and fishery products for the benefit of the fishing community.

## **Specific activities include:**

Pilot-scale conversion of low-value fish at ports in India into prawn feed, and on local manufacture of nutritionally balanced prawn pellet feed.

Appraisal of the economics of landing and utilizing prawn trawler by-catch.

Development and demonstration of insulated ice box for use aboard the Navas of Andhra Pradesh, India.

Fish marketing investigations in the east coast states of India.

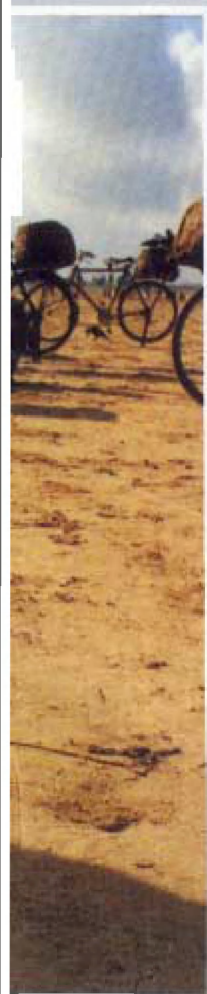
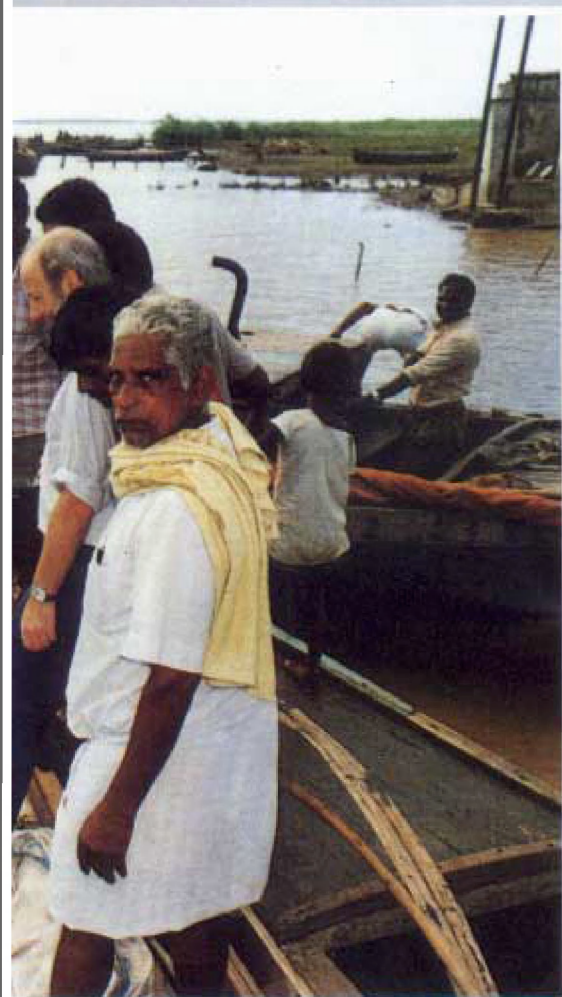
Village-level extraction of agar from seaweed.

Better utilization of shark.



*Clockwise, from top left: Pilot project on use of ice in Kakinada, Andhra Pradesh; study of fish marketing in Tamil Nadu; fish drying in Orissa; fish transport in Andhra Pradesh.*









*Fish transport in Orissa (top).*

*Seaweed processing (right).*

*Study on better utilization of shark (above)*





# FISHERY RESOURCES

During 1983-86, BOBP implemented a UNDP-funded project, "Marine fishery resources management in the Bay of Bengal". The project reviewed fishery resources of the region, and current practices in fishery resource assessment and management. Investigations were conducted on specific resources (hilsa in Bangladesh, the tuna in the Andaman Sea, tuna in the EEZs of Sri Lanka and Maldives, mackerel in the Malacca Straits.) During 1986-88, exploratory tuna surveys were carried out in Sri Lanka and Maldives.

BOBP is presently investigating the reef fish resource in the Maldives, under a project funded by UNDP. The project will give an idea of the abundance of this resource and of how best it can be tapped. The BOBP is also promoting the concept of bio-economics in small-scale fisheries. The idea is to study fisherfolk

communities more closely, and secure their participation in collecting data and exchanging information and knowledge with social scientists. It is hoped that more effective fisheries management systems can then be developed with the active participation of fisherfolk. The bio-economics project is to be funded by UNDP.

In this connection, BOBP is investigating kattumaram fisherfolk communities in Andhra Pradesh (data on the resources, the socio-economics and the technology of the kattumaram fishery has been studied). Similar studies are also being carried out with the set bagnet fisherfolk community in Bangladesh. It is hoped that this work will expand the data base and the knowledge base concerning these communities, so that specific measures to improve their lot can be taken up.

*Investigations are being conducted into the set bagnet community in Bangladesh.*







*Exploratory tuna project in Sri Lanka (above).*

*Reef fishery in the Maldives (right).*

*Study of Kattumaram fisherfolk community in Kothapatnam, Andhra Pradesh (below).*





# INFORMATION

The BOBP's Information Service documents and disseminates information on Programme work, and on small-scale fisheries in general. The aim is to strengthen awareness and spur debate and discussion on BOBP work and on small-scale fisheries issues among fisheries experts, governments, development agencies, the mass media, the general public, and the fisherfolk themselves.

The output of the Information Service includes:

- A quarterly pictorial newsletter, *Bay of Bengal News*.
- Technical reports on BOBP activities.
- Audio-visuals and video programmes.
- Photo exhibitions, posters and extension materials.
- Technical drawings and diagrams.

A library provides research and reference services to Programme staff and to fisheries officials of the region.







**BCBP** For Fisheries Development  
**Bay of Bengal Programme**

**THE AGENCIES**



Food and Agriculture Organisation of the United Nations



Swedish International Development Authority

**Danida**

Danish International Development Agency



Overseas Development Authority

**AGFUND**

Arab Gulf Fund for United Nations Development Organizations



United Nations Development Programme



United Nations Population Fund

**THE GOVERNMENTS**

Bangladesh

India

Indonesia

Malaysia

Maldives

Sri Lanka

Thailand